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Polysciences' Gold Standard Series Routine Histology and Cytology Stains and Reagents

Polysciences' Gold Standard Stains for routine Histology and Cytology Staining are formulated for the most reproducible daily usage in your laboratory.

Strict Quality Control of each stain lot is performed to assure the best stains available. Each lot is then checked in our Histology Laboratory on paraffin embedded tissue sections and buccal smears. To ensure lot-to-lot consistency, these results are compared with sections and smears prepared with previous lots of stain.

Gold Standard Series Gill's No. 1 is the ideal choice for routine cytology staining. This is the single strength formula of Gill's Hematoxylin and optimally stains gynecological and non-gynecological specimens. It can be used for staining filters and membranes as well.

Gold Standard Series Gill's No. 2 should be used when a stronger or darker nuclear stain is required for cytology or immuno-histochemistry (IHC) counterstaining. The Gill's No. 2 formulation is a double strength mixture and stains darker and more quickly than Gill's No. 1. If compared to the Gill's No. 1 protocol, the staining time for Gill's No. 2 is shortened to 1 to 2 minutes for cytology and IHC. The sections are then processed through ascending alcohols to xylene or other clearing reagents and coverslipped.

Gold Standard Series Gill's No. 1 (Single Strength) Protocol*

Solution	Recommended Times	Optimized Times
1. 95% Ethyl Alcohol** (For fixation and removal of water soluble paraffin)	15 min. (RT)	_____
2. 50% Ethyl Alcohol (Optional)	10 to 20 dips	_____
3. Distilled or Deionized Water	10 to 20 dips	_____
4. Gill's No. 1 Hematoxylin	1 to 4 minutes	_____
5. 2 Changes of Distilled or Deionized Water	10 to 20 dips each	_____
6. Bluing Reagent (Smears should turn blue)	1 minute	_____
7. 2 Changes of Distilled or Deionized Water	10 to 20 dips each	_____
8. 2 Changes of 95% Ethyl Alcohol	10 to 20 dips each	_____
9. Gill's Modified OG-6	1 to 2 minutes	_____
10. 3 Changes of 95% Ethyl Alcohol	10 to 20 dips each	_____
11. Gill's Modified EA	4 to 10 minutes	_____
12. 3 Changes of 95% Ethyl Alcohol	10 to 20 dips each	_____
13. 3 Changes of xylene, d-limonene based clearant, or other clearant	1 minute each	_____
14. Coverslip with PolyMount for xylene or toluene based clearants or CitraMount™ for d-limonene based clearants.		

* To prevent contamination of the solution for Cytology specimens filter Gill's No. 1 prior to each use.

**Methanol, Acetone, or other fixative may replace ethyl alcohol according to preference of the laboratory.

With the exception of the fixation step, reagent alcohol can be substituted for ethyl alcohol.

Gold Standard Series Gill's No. 3 is appropriate for routine histology staining where a darker nuclear stain is desired. This is a triple strength formula requiring shorter staining times. The formula is very stable and does not require filtering prior to each use.

Harris Hematoxylin is used for routine histology and cytology and has been a standard hematoxylin stain for many decades. It is the preferred hematoxylin for many users. By varying the staining times, results similar to those of the three Gill's formulations can be achieved.

Routine Manual Staining Protocols:

Manual staining protocols are given for routine staining in both Histology and Cytology. If using an automated stainer it is recommended that you follow the manufacturer's instructions for staining protocols in your operator's manual. Consistency and reliability are the key factors in routine staining therefore changing the solutions as required will ensure the best results. Suggested staining times for all protocols can be varied as required by the laboratory. Please refer to Technical Data Sheet #192.

For Papanicolaou Staining, please refer to Technical Data Sheet #196 on Gill's Modified OG-6 and EA.

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Gold Standard Series Gill's No. 2 (Double Strength) Protocol*

Solution	Recommended Times	Optimized Times
1. 95% Ethyl Alcohol** (For fixation and removal of water soluble paraffin)	15 min. (RT)	_____
2. 50% Ethyl Alcohol (Optional)	10 to 20 dips	_____
3. Distilled or Deionized Water	10 to 20 dips	_____
4. Gill's No. 2 Hematoxylin	1 to 2 minutes	_____
5. 2 Changes of Distilled or Deionized Water	10 to 20 dips each	_____
6. Bluing Reagent (Smears should turn blue)	1 minute	_____
7. 2 Changes of Distilled or Deionized Water	10 to 20 dips each	_____
8. 2 Changes of 95% Ethyl Alcohol	10 to 20 dips each	_____
9. Gill's Modified OG-6	1 to 2 minutes	_____
10. 3 Changes of 95% Ethyl Alcohol	10 to 20 dips each	_____
11. Gill's Modified EA	4 to 10 minutes	_____
12. 3 Changes of 95% Ethyl Alcohol	10 to 20 dips each	_____
13. 3 Changes of xylene, d-limonene based clearant, or other clearant	1 minute each	_____
14. Coverslip with PolyMount for xylene or toluene based clearants or CitraMount™ for d-limonene based clearant.		_____

* To prevent contamination of the solution for Cytology specimens filter Gill's No. 2 prior to each use.

**Methanol, Acetone, or other fixative may replace ethyl alcohol according to preference of the laboratory.

With the exception of the fixation step, reagent alcohol can be substituted for ethyl alcohol.

Gold Standard Series Gill's No. 2 IHC Counterstaining Protocol

Solution	Recommended Times	Optimized Times
1. Gill's No. 2 Hematoxylin	1 to 4 minutes	_____
2. Running Tap Water (or 2 changes of Deionized Water)	1 minute	_____
3. Bluing Reagent (Tissue should turn blue)	1 to 2 minutes	_____
4. 2 Changes of Distilled or Deionized Water	10 dips each	_____
5. 3 Changes of 95% Ethyl Alcohol	10 to 20 dips each	_____
6. 2 Changes of 100% Ethyl Alcohol	10 to 20 dips each	_____
7. 3 Changes of xylene, d-limonene, or other clearant	10 to 20 dips each	_____
8. Coverslip with Poly-Mount for xylene or toluene based clearants or CitraMount™ for d-limonene based clearant.		_____

Gold Standard Series Gill's No. 3 (Triple Strength) Protocol

Solution	Recommended Times	Optimized Times
1. Deparaffinize with the preferred protocol for your lab with clearing reagent and descending alcohols to water.		_____
2. Distilled or Deionized Water	10 dips	_____
3. Gill's No. 3 Hematoxylin	1 to 4 minutes	_____
4. Running Tap Water (or 2 changes of Deionized Water)	1 minute	_____
6. Bluing Reagent (Tissue should turn blue)	1 to 2 minutes	_____
7. 2 Changes of Distilled or Deionized Water	10 dips each	_____
8. 2 Changes of 95% Ethyl Alcohol (optional)	10 dips each	_____
9. 1% Alcoholic Eosin Y (Non-Acidic) or 0.5% Alcoholic Eosin Y (Acidic)	2 to 4 minutes	_____
10. 3 Changes of 95% Ethyl Alcohol	10 to 20 dips each	_____
11. 2 Changes of 100% Ethyl Alcohol	10 to 20 dips each	_____
12. 3 Changes of xylene, d-limonene, or other clearant	10 to 20 dips each	_____
13. Coverslip with Poly-Mount for xylene or toluene based clearants or CitraMount™ for d-limonene based clearant.		_____

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Solution	Recommended Times	Optimized Times
1. Deparaffinize with the preferred protocol for your lab with clearing reagent and descending alcohols to water.		
2. Distilled or Deionized Water	10 dips	_____
3. Harris Hematoxylin	4 to 10 minutes	_____
4. Running Tap Water (or 2 changes of Deionized Water)	10 minutes (1 minute)	_____
5. Acid Alcohol Rinse	10 seconds to 1 minute	_____
6. 2 Changes of Distilled or Deionized Water	10 dips each	_____
7. Bluing Reagent (Tissue should turn blue)	1 to 2 minutes	_____
8. 2 Changes of Distilled or Deionized Water	10 dips each	_____
9. 1 Change of 95% Ethyl Alcohol (optional)	10 dips each	_____
10. 1% Alcoholic Eosin Y (Non-Acidic) or 0.5% Alcoholic Eosin Y (Acidic)	2 to 4 minutes	_____
11. 3 Changes of 95% Ethyl Alcohol	10 dips each	_____
12. 2 Changes of 100% Ethyl Alcohol	10 dips each	_____
13. 3 Changes of xylene or d-limonene or other clearant	1 minute each	_____
14. Coverslip with Poly-Mount for xylene or toluene based clearants or CitraMount™ for d-limonene based clearant.		

*This formula will produce a precipitate in the bottle and should be filtered before each use. The staining dishes should be kept covered and airtight between uses to prevent deterioration of the stain.

Ordering Information:

Part Number	Description	Product Size
24242-500	Gill's No. 1 Hematoxylin for Cytology	500ml
24242-1000	Gill's No. 1 Hematoxylin for Cytology	1000ml
24242-3.8	Gill's No. 1 Hematoxylin for Cytology	3.8L
24243-500	Gill's No. 2 Hematoxylin for Histology and Cytology	500ml
24243-1000	Gill's No. 2 Hematoxylin for Histology and Cytology	1000ml
24244-500	Gill's No. 3 Hematoxylin for Histology	500ml
24244-1000	Gill's No. 3 Hematoxylin for Histology	1000ml
24245-500	Harris Hematoxylin, Mercury-Free, Acidified	500ml
24245-1000	Harris Hematoxylin, Mercury-Free, Acidified	1000ml
09782-500	Gill's Modified OG-6	500ml
09782-1000	Gill's Modified OG-6	1000ml
09782-3.75	Gill's Modified OG-6	3.75L
09783-500	Gill's Modified EA	500ml
09783-1000	Gill's Modified EA	1000ml
09783-3.75	Gill's Modified EA	3.75L
09859-500	Eosin Y, 0.5%, Alcoholic Solution, Acidic	500ml
09859-1000	Eosin Y, 0.5%, Alcoholic Solution, Acidic	1000ml
09859-3.75	Eosin Y, 0.5%, Alcoholic Solution, Acidic	3.75L
17269-500	Eosin Y, 1%, Alcoholic Solution, Non-Acidic	500ml
17269-1000	Eosin Y, 1%, Alcoholic Solution, Non-Acidic	1000ml
17269-3.75	Eosin Y, 1%, Alcoholic Solution, Non-Acidic	3.75L
09860-1	Alcohol, Reagent (100%) Histology Grade	1 gallon
08389-1	Xylene, Histology Grade	1 gallon
18606-20	Aqua-Poly/Mount Coverslipping Media, Non-Permanent Aqueous	20ml
08381-120	Poly-Mount, Coverslipping Media (miscible with toluene and xylene)	120ml
08381-940	Poly-Mount, Coverslipping Media (miscible with toluene and xylene)	940ml
24176-120	Poly-Mount Xylene, Coverslipping Media	120ml
24176-940	Poly-Mount Xylene, Coverslipping Media	940ml
24214-120	CitraMount™ Coverslipping Media for d-limonene clearant	120ml
24214-940	CitraMount™ Coverslipping Media for d-limonene clearant	940ml

To Order:

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